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ABSTRACT

Characteristics of the class of 1974 at the five federal service academies were compared with characteristics of students in the same class in other colleges; 300 variables of academic achievement, class standing, athletic ability, nonathletic activities, general attitudes, and other attributes such as family and financial background were considered. Statistical analyses are used throughout the study, and a dropout profile is constructed. The federal service dropout: (1) scored above the national average on standardized academic measures; (2) had high school achievement lower than the persisting student; (3) ranked considerably below persisting students in Military Order of Merit; (4) was athletically inclined but showed less aptitude on athletic tests; (5) did not differ significantly from persisting students in nonathletic activities; (6) characterized his political and social attitudes as liberal more often than his persisting counterparts; and (7) was from a middle income home with well-educated, professional parents. (Editor/MSE)

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ED135288

REPORT TO THE CONGRESS

BY THE COMPTROLLER GENERAL OF THE UNITED STATES

Student Attrition At The Five Federal Service Academies

Departments of Defense,
Commerce, and Transportation

ENCLOSURE C

CHARACTERISTICS OF ACADEMY STUDENTS

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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ABBREVIATIONS

ACE	American Council on Education
LES	Leadership Evaluation Score
MOM	Military Order of Merit
NAAS	nonathletic activity score
PAE	physical aptitude exam
SAT	Scholastic Aptitude Test
SIF	Student Information Form

CHAPTER 1

CHARACTERISTICS OF ACADEMY STUDENTS

During our study both the academies and our consultants emphasized the need to ascertain whether the academies are losing students whom they would like to keep and who are potentially good career officers. If they were losing many such students, the need to reduce attrition would be more pronounced. If, on the other hand, most dropouts represent a far inferior group, attrition would be correcting for limitations in selection techniques and insuring that only quality students were graduated. One former academy superintendent estimated that about 20 percent of "voluntary" dropouts were good cadets and potentially good officers.

To compare the types of students who dropped out with those who remained, we obtained data on the characteristics of entering students of the class of 1974 (students who entered in 1970) from the American Council on Education. In addition, the academies furnished us high school performance and academic achievement data for this class. This student characteristics data base consisted of about 300 individual items or variables. The data we obtained from ACE and the academies has been examined for general reasonableness, but it has not been verified. Where the data appeared of questionable validity, it was not used.

We used the class of 1974 because, at the time the data was obtained, the current students from this class were only about 3 months from graduation; therefore, the profile of the current students represents, by and large, the profile of the graduates of the class. Few students drop out during their last 3 months.

This enclosure provides details on the information in chapter 3 of the main report, as well as additional information on the characteristics of academy students. It describes the types of students who came to the academies and the types who dropped out during their first summer, their fourth-class academic year, and their third-class year. It then compares those who dropped out with those who stayed, highlighting significant differences between the groups.

In the comparison of dropouts with current students, four categories are used to describe differences: (1) highly significant, (2) significant, (3) marginally significant, and (4) nonsignificant. In a statistical sense, the differences are as follows:

Category	Significance level
Highly significant	$p \leq .01$
Significant	$.01 < p \leq .05$
Marginally significant	$.05 < p \leq .10$
Nonsignificant	$p > .10$

Students from each academy will be discussed separately on each of the following dimensions:

--Academic ability or potential as measured by:

1. Standardized tests of academic ability and achievement (Scholastic Aptitude Test (SAT) mathematics, SAT verbal, math achievement, and English composition tests).

2. High school academic achievements.

--One aspect of academy performance as measured by Order of Merit.

--Athletic ability and preacademy membership in athletic organizations.

--Nonathletic ability and preacademy participation in extracurricular activities.

--Political views upon entering the academy.

--Attitudes and activities of academy students upon entry.

--General information.

Data on Merchant Marine Academy students for the class of 1974 was not obtained by the American Council on Education because the Academy did not begin participating in the program until the class of 1977; therefore, our discussion of students at this Academy is limited to academic measures obtained from Academy records and information from Academy publications.

In addition, because the number of Naval Academy first summer dropouts for whom we had data was not sufficient for meaningful analyses, no comparisons for this group will be made.

STANDARDIZED ACADEMIC MEASURES

Our data base included two sets of standardized academic tests, both prepared for the College Entrance Examination Board by the Educational Testing Service and both commonly called CEEBs or College Boards. One set consisted of scores on the SAT, which has two parts; a test of verbal aptitude; and a test of quantitative (or mathematics) aptitude. The second set consisted of scores on two particular achievement tests, one in English composition and one in mathematics. These latter tests are designed to measure skills and knowledge learned in high school in these two areas. Both the SAT and the achievement tests are usually taken in the junior and/or senior year of high school by many students who intend to go on to college.

The Federal service academies intentionally select students who tend to score considerable higher than the national average on standardized academic tests. Their higher math scores as compared to verbal scores is consistent with the emphasis on engineering at the academies, which is heavily math oriented. A discussion of the standardized academic measures by academy follows.

Air Force Academy

The following chart compares the Air Force Academy class of 1974 with the national average.

For each measure, Air Force Academy students, on the average, far exceeded the national average. This is due largely to Air Force Academy standards applicable to this class, which required a combined minimum verbal score of 950 and combined math score of 1,050 for entry.

Analysis of standardized test scores by time of dropout shows a significant difference between dropouts and current students during certain times. The following table compares test scores by time of dropout. The table shows only the mean test scores and not the distribution of scores; therefore, the significance of the differences may not always be apparent from the table.

Air Force Academy

	Current students	Dropouts: First summer	Dropouts: Fourth-class academic year	Dropouts: Third-class year
SAT math	662	669	649*	666
SAT verbal	581	590	582	591**
Math achievement	665	671	645*	665
English composition	569	567	572	580**

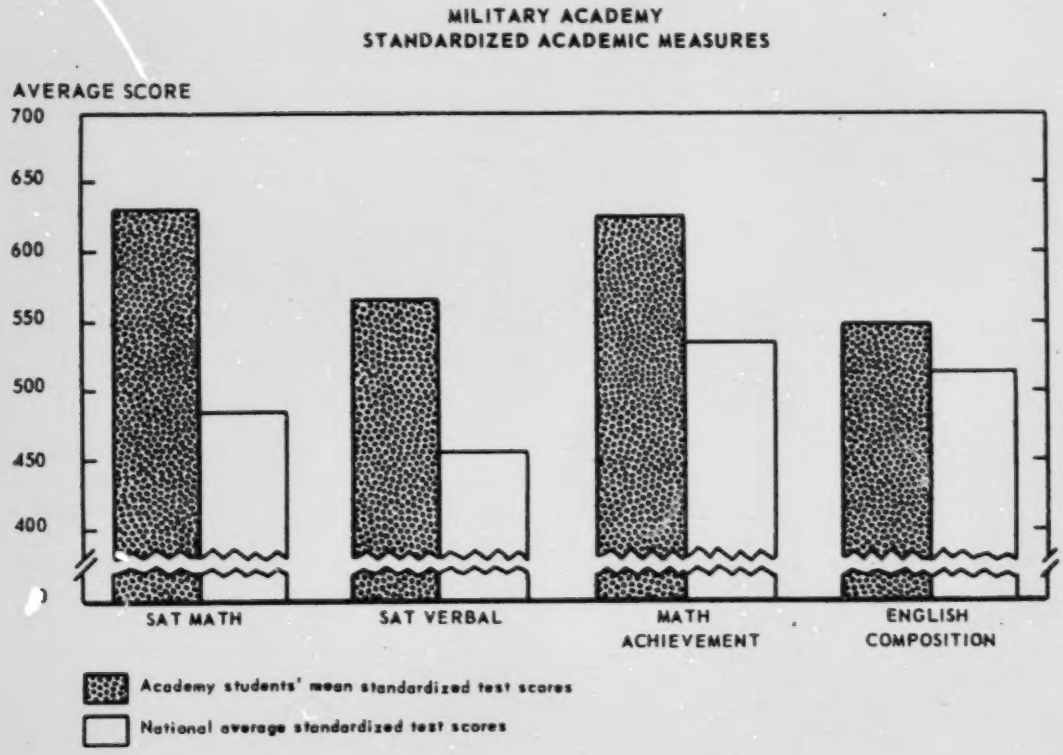
* $p \leq .01$.
** $.01 < p \leq .05$.

During the first summer, standardized test scores did not vary significantly between dropouts and current students; little emphasis is placed on academics during this military orientation period. During the fourth-class academic year, however, a highly significant difference exists between dropouts and current students in terms of standardized math scores. Twenty-four percent of the dropouts have SAT math scores of less than 600 as compared to only 15 percent of the current students. A highly significant difference also exists in math achievement test scores; 27 percent of the dropouts scored lower than 600 as compared to 19 percent of the current students. This means that, in the fourth-class academic year, the Academy is losing those students who tend to have lower math ability and potential.

During the third-class year, the average standardized test scores are slightly higher for dropouts than current students; however, the difference is significant only for the verbal test scores.

Military Academy

The entering students of the Academy's class of 1974 scored much higher on standardized academic tests than did the average high school student, as follows:



The following table presents the standardized test scores for the three dropout time frames and for the current students.

Military Academy

		Dropouts		
	Current students	First summer	Fourth-class academic year	Third-class year
SAT math	635	635	621**	626***
SAT verbal	567	550**	560	551**
Math achievement	631	631	610*	615**
English composition	552	550	538**	543

* $p < .01$.
** $.01 < p \leq .05$.
*** $.05 < p \leq .10$.

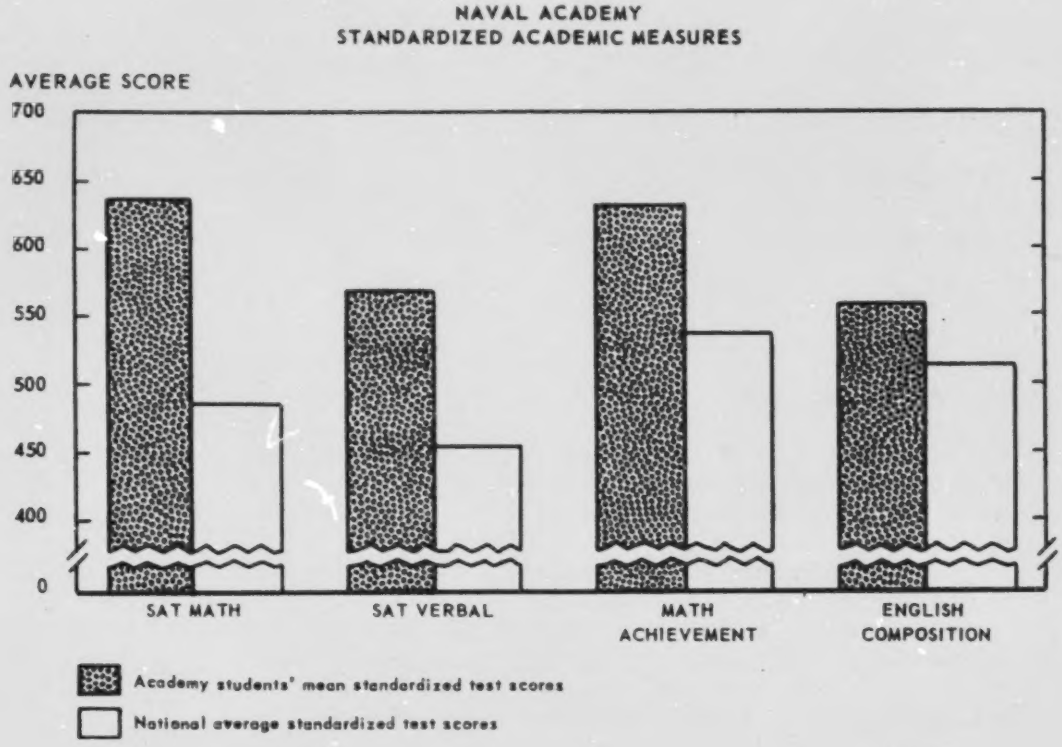
During the first summer only the SAT verbal scores varied significantly between dropouts and current students; the current student tended to have higher SAT verbal scores.

The fourth-class academic year scores showed significant differences between dropouts and current students for SAT math scores and English composition scores and a highly significant difference for math achievement scores. When a difference was detected, the current students, as a group, always had higher standardized scores than the dropouts.

Third-class year dropouts show significant differences from current students on the SAT verbal and math achievement and a marginally significant difference on the SAT math; the current student scored higher than the dropouts.

Naval Academy

The Naval Academy accepts students whose average standardized test scores are much higher than the national average, as shown in the chart below. This is followed by a table showing the mean standardized test scores by time of dropout.



Naval Academy

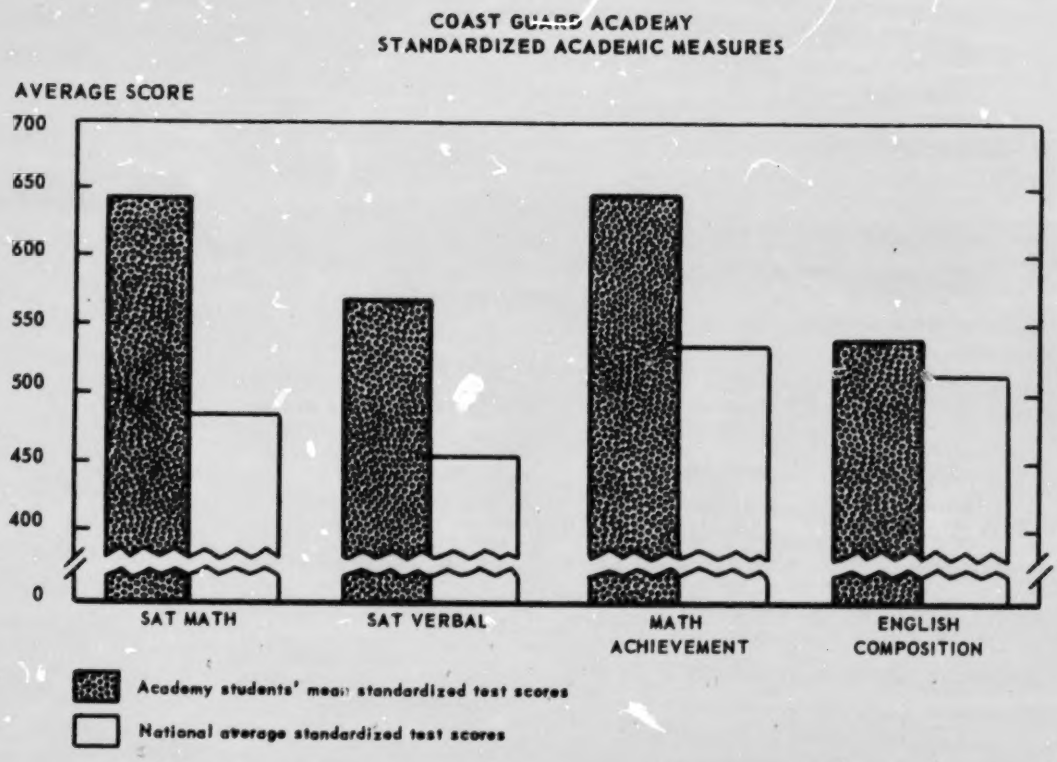
	Current students	Dropouts: Fourth-class academic year	Dropouts: Third-class year
SAT math	643	623*	629*
SAT verbal	569	565	560***
Math achievement	640	608*	618*
English composition	560	542*	542*

* $p \leq .01$.
*** $.05 < p \leq .10$.

During the fourth-class academic year and the third-class year, a highly significant difference exists in terms of SAT math scores and both achievement test scores. The SAT verbal scores displayed a marginally significant difference between dropouts and current students during the third-class year. On all these measures, the dropouts tended to score lower.

Coast Guard Academy

The Coast Guard Academy accepts students whose average standardized academic test scores are much higher than the national average in all instances; the SAT math scores show the most profound difference. The following chart compares the Coast Guard Academy entering students' standardized test scores with the national average.



Analysis of these individual standardized test scores by time of dropout did not show a significant difference between dropouts and current students during the first summer or fourth-class academic year. However, during the third-class year the math achievement scores differ significantly. A marginally significant difference was also found for English composition scores. The current student tended to score higher on both achievement tests. The following table compares academic test scores by time of dropout with scores of current students.

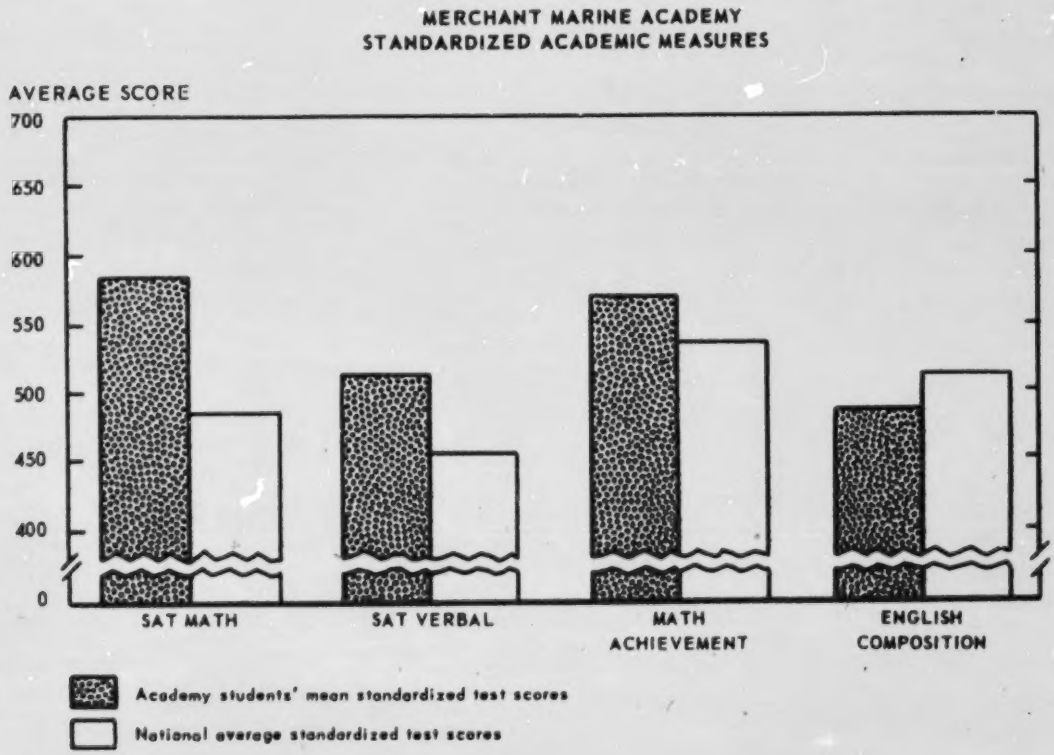
Coast Guard Academy

		Dropouts		
	Current students	First summer	Fourth-class academic year	Third-class year
SAT math	648	638	638	640
SAT verbal	571	574	557	562
Math achievement	650	657	651	629**
English composition	545	537	546	526***

** $.01 < p \leq .05$.
*** $.05 < p \leq .10$.

Merchant Marine Academy

The following chart compares Merchant Marine Academy mean test scores with the national average.



Except for the English composition test score, the Academy is accepting students who score above the national average. We did not analyze data on standardized test scores between dropouts and current students.

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HIGH SCHOOL ACHIEVEMENT

Our measures of high school achievement are based upon (1) high school rank as reported by the student, (2) high school rank as reported to the academy and converted to a standardized score, (3) high school grades as reported by the student, and (4) high school scholastic honor society membership. Analysis of all four measures indicated differences at all academies between dropouts and current students for most time frames; the dropouts tended to be lower in high school achievements.

Air Force Academy

Student-reported high school rank

The following table shows the percentage of Air Force Academy students in each quarter of their high school graduating class, as reported by the student.

Air Force Academy
Student-Reported High School Rank

Quarter	Percent
Top	90
Second	9
Third	1
Fourth	0

Except for first summer dropouts, a highly significant difference between dropouts and current students exists, as the following table shows.

Air Force Academy
Student-Reported High School Rank

		Dropouts		
Quarter	Current students	First summer	Fourth-class academic year*	Third-class*
Top	94%	97%	85%	86%
Second	5	3	14	11
Third	1	-	1	2
Fourth	0	-	-	1

* $p \leq .01$.

The current students tended to rank higher than the dropouts.

High school rank as reported to the academy

The Academy converts the student's high school rank into a standardized score ranging from 200 to 800 using a system devised by the Educational Testing Service. For students from high schools where students are not ranked, the Academy derives a standard high school rank from the student's high school grade point average and class size.

The following table compares Air Force Academy students by time of dropout. The Academy normally considers 400 to be a minimum score, which translates into a student being in the top 40 percent of his class.

Air Force Academy
Converted High School Rank

Converted high school rank	Current students	Dropouts		
		First summer	Fourth-class academic year*	Third-class year**
301 to 400	1%	-	2%	2%
401 to 500	18	18%	33	20
501 to 600	41	49	39	41
601 to 700	30	21	21	29
701 to 800	10	12	5	8

*$p \leq .01$.
**$.01 < p \leq .05$.

A highly significant difference between dropouts and current students exists in the fourth-class academic year, when about 35 percent of the dropouts scored 500 or less compared to only about 19 percent of the current students. During the third-class year, a significant difference also exists between the dropouts and current students. These results are consistent with the high school rank information reported by the students. The chart and our analysis indicate that, during the fourth-class academic year and third-class year, the Academy lost students who, on the average, are lower in high school rank.

High school grades

Forty-six percent of entering students reported average high school grades of A, 51 percent reported B averages, and 3 percent reported C averages. The following table compares dropouts with current students.

The difference between current students and dropouts is highly significant during the fourth-class academic year and the third-class year; the dropouts tend to have lower average high school grades, as shown below:

Air Force Academy
Student-Reported High School Grades

Average grade	Current students	Dropouts		
		First summer	Fourth-class academic year*	Third-class year*
A	53%	41%	36%	43%
B	46	56	60	52
C	1	3	4	5
D	-	-	-	-

* $p \leq .01$.

High school scholastic honor society membership

Sixty-six percent of entering students reported membership in high school scholastic honor societies.

A significant difference between current students and dropouts occurs during the fourth-class academic year. Also a marginally significant difference exists in the third-class year. Students who had been members of scholastic honor societies had a greater chance of remaining at the Academy, as follows:

Air Force Academy
Scholastic Honor Society Membership

Membership	Current students	Dropouts		
		First summer	Fourth-class academic year**	Third-class year***
Yes	71%	79%	56%	64%
No	29	21	44	36

** $.01 < p \leq .05$.
*** $.05 < p \leq .10$.

Military Academy

Student-reported high school rank

The following tables show the percentage of incoming students of the class of 1974 in each quarter of their high school graduating class and compare the percentage of dropouts in each time frame with the current students.

Military Academy
Student-Reported High School Rank

Quarter	Percent
Top	84
Second	12
Third	3
Fourth	1

Military Academy
Student-Reported High School Rank

		Dropouts		
Quarter	Current students	First summer	Fourth-class academic year	Third-class year*
Top	87%	89%	79%	77%
Second	10	9	18	17
Third	3	-	3	4
Fourth	0	2	-	2

* $p \leq .01$.

A highly significant difference exists between current students and dropouts for only the third-class year; the dropouts, as a group, are lower in reported high school rank. Less than 1 percent of the students reported they were in the lowest quarter of their high school graduating class; 66 percent of these students dropped out.

High school rank as reported to the academy

The following table shows the converted high school rankings of the students who entered the class of 1974. We were not able to break down dropouts and current students by time frame.

Military Academy
Converted High School Rank

Rank	Percent of Students
200 to 299	1
300 to 399	7
400 to 499	18
500 to 599	40
600 to 699	25
700 to 799	9

High school grades

Forty-two percent of entering students reported average high school grades of A, 53 percent reported B averages, 5 percent reported C averages, and less than 1 percent reported D averages. The following table compares dropouts with current students.

Military Academy
Student-Reported High School Grades

		Dropouts		
Average grade	Current students	First summer	Fourth-class academic year*	Third-class year***
A	45%	44%	24%	41%
B	51	53	68	51
C	4	3	8	8
D	0	-	-	-

* $p \leq .01$.
*** $.05 < p \leq .10$.

In the first summer, when little emphasis is given to academics, not much difference exists between current students and dropouts. However, during the fourth-class academic year, there is a highly significant difference and, during the third-

class year, a marginally significant difference. Those with lower high school grades had a greater tendency to drop out.

High school scholastic honor society membership

Sixty-one percent of entering Academy students belonged to a scholastic honor society.

A highly significant difference between current students and dropouts exists during the fourth-class academic and third-class years. Again, during the first summer, when academics is not the main emphasis, there is not a significant difference between dropouts and current students in terms of membership in a scholastic honor society. The following table shows the percentage of students for each time frame who indicated they were members of such a society.

Military Academy
Scholastic Honor Society Membership

		Dropouts		
Membership	Current students	First summer	Fourth-class academic year*	Third-class year*
Yes	64%	66%	43%	51%
No	36	34	57	49

* $p \leq .01$.

Those students who had not belonged to a high school scholastic honor society had a greater probability of dropping out during the fourth-class academic and third-class years.

Naval Academy

Student-reported high school rank

The following tables show the percentage of students in each quarter of their high school graduating class and compare the percentages for dropouts and current students.

Naval Academy
Student-Reported High School Rank

Quarter	Percent
Top	82
Second	15
Third	3
Fourth	0

Naval Academy
Student-Reported High School Rank

Quarter	Current students	Dropouts: Fourth-class academic year***	Dropouts: Third-class year*
Top	84%	75%	68%
Second	13	22	26
Third	3	3	6
Fourth	0	-	-

* $p \leq .01$.
*** $.05 < p \leq .10$.

There is a marginally significant difference between dropouts and current students during the fourth-class academic year and a highly significant difference during the third-class year. The Naval Academy lost those students who tended to rank lower in high school than the current students.

High school rank as reported to the academy

Analysis of the converted high school rank shows a highly significant difference between current students and dropouts during the fourth-class academic year and third-class year, as follows.

Naval Academy
Converted High School Rank

Converted high school rank	Current Students	Dropouts: Fourth-class academic year*	Dropouts: Third-class year*
301 to 400	3%	6%	6%
401 to 500	33	43	44
501 to 600	38	37	31
601 to 700	19	9	17
701 to 800	7	5	2

* $p \leq .01$

Only 14 percent of fourth-class academic year dropouts had a high school rank score greater than 600 compared to 26 percent of the current students. The Naval Academy

normally considers a score of 400 to be the minimum for admission; this translates into a student being ranked in the top 40 percent of his graduating class.

High school grades

Thirty-seven percent of entering students reported average high school grades of A, 59 percent reported B averages, and 3 percent reported C averages. The following table compares dropouts and current students.

Naval Academy
Student-Reported High School Grades

		Dropouts	
Average grade	Current students	Fourth-class academic year*	Third-class year**
A	40%	20%	31%
B	57	77	63
C	3	3	6
D	-	-	-

* $p \leq .01$.
** $.01 < p \leq .05$.

A highly significant difference between dropouts and current students exists during the fourth-class academic year when only 20 percent of the dropouts had average high school grades of A compared to 40 percent of the current students. A significant difference also exists during the third-class year; 31 percent of the dropouts had average grades of A compared to 40 percent of the current students. This indicates that the Naval Academy lost those students who tended to have lower average high school grades.

High school scholastic honor society membership

Fifty-seven percent of entering Naval Academy students reported being members of a high school scholastic honor society. Those claiming membership in a high school scholastic honor society differed significantly between dropouts and current students. The fourth-class academic and third-class year dropouts had a substantially lower percentage of membership in a high school scholastic honor society than did the current students. This difference was highly significant for both time frames. The following table displays the student responses to this measure.

Naval Academy
Scholastic Honor Society Membership

Membership	Current students	Dropouts: Fourth-class academic year*	Dropouts: Third-class year*
Yes	62%	43%	47%
No	38	57	53

* $p \leq .01$

Coast Guard Academy

Student-reported high school rank

The following tables show the percentage of incoming Coast Guard Academy students of the class of 1974 who were in each quarter of their high school graduating class and compares dropouts in each time frame with the current students.

Coast Guard Academy
Student-Reported High School Rank

Quarter	Percent
Top	90
Second	9
Third	1
Fourth	-

Coast Guard Academy
Student-Reported High School Rank

Quarter	Current students	Dropouts: First summer	Dropouts: Fourth-class academic year***	Dropouts: Third-class year**
Top	92%	80%	88%	79%
Second	7	20	6	19
Third	1	-	6	2
Fourth	-	-	-	-

** $.01 < p \leq .05$.
*** $.05 < p \leq .10$.

A marginally significant difference between dropouts and current students exists for the fourth-class academic year and a significant difference exists during the third-class year. Those students who left the Academy tended to rank

themselves lower than those who remained. No statistically significant difference exists during the first summer.

Converted high school rank as reported by the academy

The Coast Guard Academy did not use the Educational Testing Services standard conversion formula for high school rank but created its own conversion table; standardized scores ranged from 425 to 800. The low score of 425 was designed not to penalize those students who attended difficult high schools.

Analysis of the Academy's converted high school rank (see table below) shows a highly significant difference between current students and dropouts during the fourth-class academic and third-class years; the current students tended to have a higher converted high school rank.

Coast Guard Academy
Converted High School Rank

Converted high school rank	Current students	Dropouts		
		First summer	Fourth-class academic year*	Third-class year*
401 to 500	1%	10%	3%	4%
501 to 600	29	10	55	48
601 to 700	56	70	28	42
701 to 800	14	10	14	6

* $p \leq .01$

The Academy normally considers a score of 550 to be the minimum qualifying score for admission; this translates into a student ranking in the top 25 percent of his high school graduating class.

High school grades

Thirty-three percent of entering students reported average high school grades of A, 65 percent reported B averages, and 2 percent reported C averages. The following table compares dropouts and current students.

Coast Guard Academy
Student-Reported High School Grades

Average grade	Current students	Dropouts: First summer	Dropouts: Fourth-class academic year**	Dropouts: Third-class year **
A	41%	11%	35%	21%
B	58	89	61	75
C	1	-	4	4
D	-	-	-	-

** $.01 < p \leq .05$.

The current student had significantly higher average high school grades than the fourth-class academic year or third-class year dropouts. Thus those students who have higher high school grades have a better chance of remaining at the Coast Guard Academy. No significant difference exists during the first summer.

High school scholastic honor society membership

Fifty-five percent of entering Coast Guard Academy students reported being members of a high school scholastic honor society.

A highly significant difference between current students and dropouts exists during the fourth-class academic year and a significant difference exists in the third-class year. Except for the first summer, most dropouts stated that they were not members of a high school scholastic honor society, whereas almost two-thirds of the current students were members of such a society, as follows:

Coast Guard Academy
Scholastic Honor Society Membership

Membership	Current students	Dropouts: First summer	Dropouts: Fourth-class academic year*	Dropouts: Third-class year**
Yes	62%	70%	36%	44%
No	38	30	64	56

* $p \leq .01$.
** $.01 < p \leq .05$.

Merchant Marine Academy

Due to limited information, only high school rankings as reported by the Academy are presented.

Merchant Marine Academy
Academy-Reported High School Rank

Rank	Percent
Top tenth	15
2d tenth	22
3d tenth	18
4th tenth	15
5th tenth	11
6th tenth	7
7th to 10th tenth	12

About 80 percent of the entering students were in the top 50 percent of their high school graduating class, and half were in the top 25 percent.

ORDER OF MERIT

The military academies assign a rank to students known as the Military Order of Merit (MOM). This measure is generally based upon student's academic performance in military studies, his leadership potential and performance reports, and his accumulated demerits. At the Military Academy it also includes his physical education grades. We gathered meaningful data on this measure for only the Air Force and Military Academies. Due to time differences in assigning the orders of merit, a statistical analysis comparing dropouts to current students would not be valid and, therefore, is not presented.

Air Force Academy

The following table shows the percentage of students ranked in each quarter of their class in terms of MOM for the fourth-class academic and third-class year dropouts. A table has not been presented for the first summer dropouts since they would not have been assigned a MOM ranking by the time of their departure. Current students would, by definition,

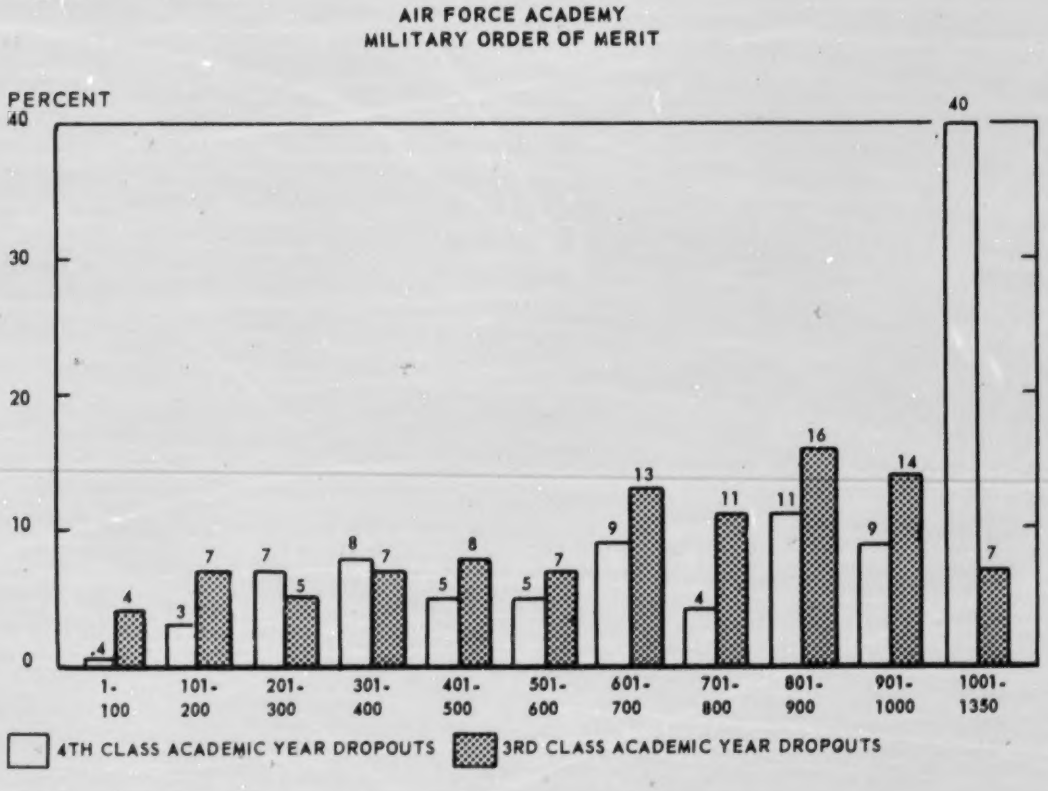
have 25 percent of their class in each quarter. The table presented has been standardized; that is, the student's MOM was divided by the size of the class when it was assigned.

Air Force Academy
Military Order of Merit

	Dropouts	
Quarter	Fourth-class academic year	Third-class year
Top	12%	14%
Second	19	18
Third	25	26
Fourth	44	42

About 68 percent of the dropouts were in the lowest half of their class when they dropped out, indicating that the Academy does tend to lose those students which it might classify as "less desirable." But the Academy is also losing 12 to 14 percent from the top quarter of their class--those students who might be classified as the "most desirable.

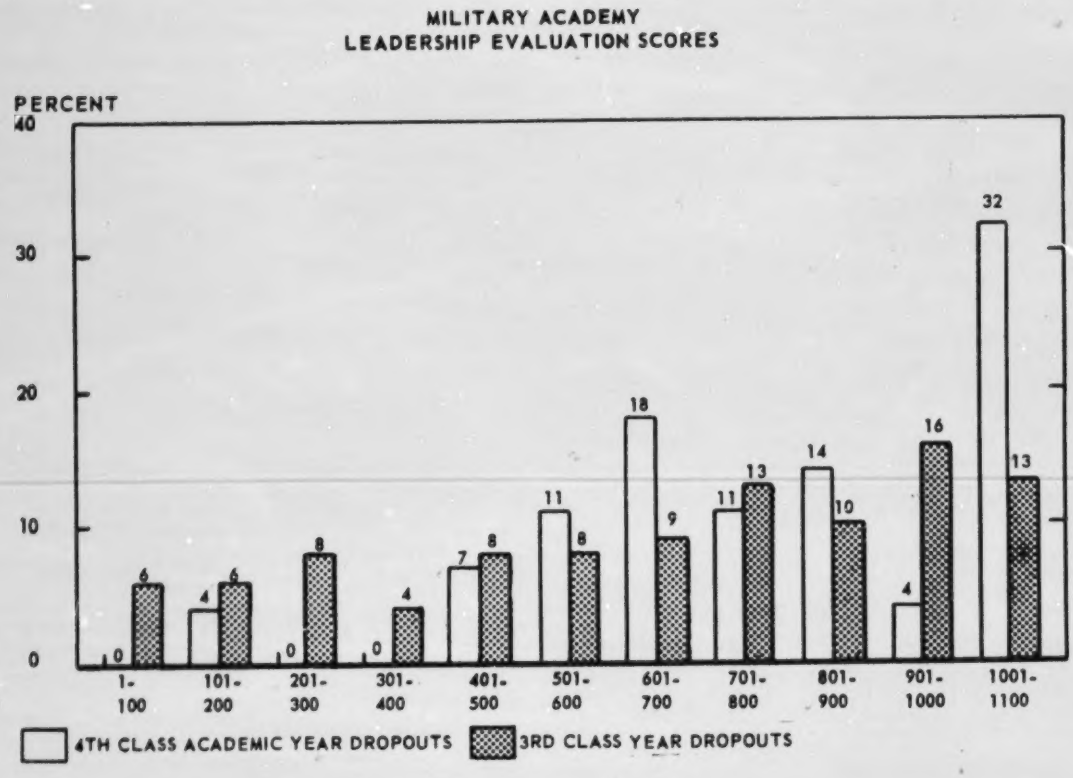
The following chart presents a finer breakout of fourth-class academic year and third-class year dropouts in each range of MOM; a score of "1" represents the highest rank.



Military Academy

The Academy gave us two merit rankings--the leadership evaluation score (LES)--which is composed of evaluations from peers, student chain of command, and tac officers' ratings--and a Military Order of Merit--which consists of a student's leadership evaluation score, his military science grade, and his physical education grade. Both scores are rank ordered; "1" represents the highest rank.

The following chart represents the percentage of fourth-class academic year and third-class year dropouts in various LES ranges.

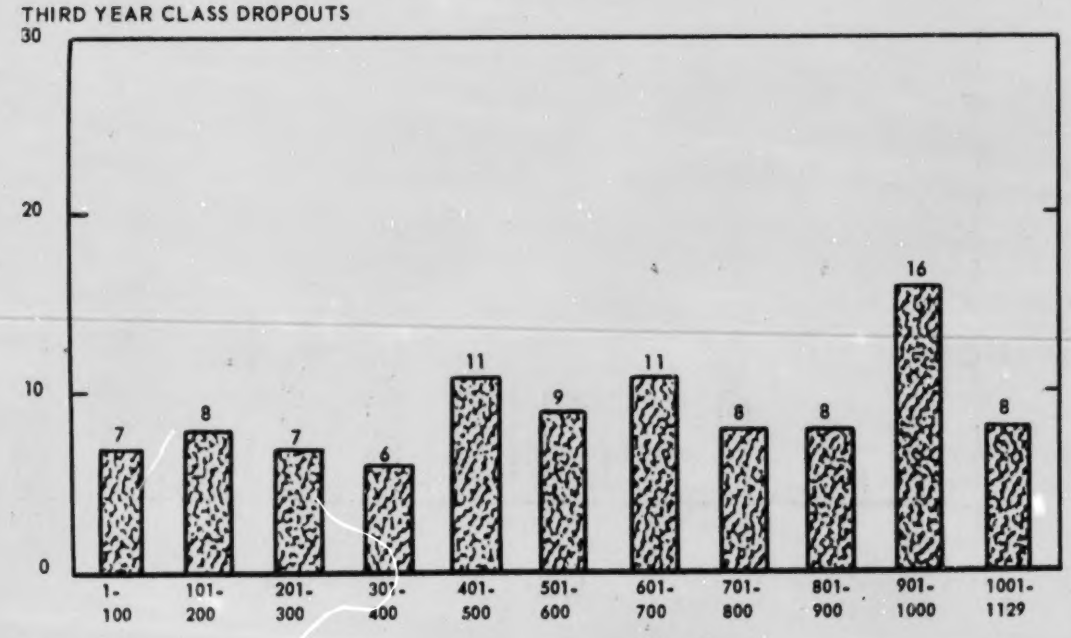


Over 70 percent of dropouts were in the lower half of their class when they dropped out. Only 4 percent of the fourth-class academic year dropouts were in the top quarter when they dropped out. However, over 12 percent of the third-class year dropouts were ranked in the top quarter. In terms of LES, the Military Academy lost more of those students which had the lower rankings; however, it also lost some students who ranked high.

30

Analysis of MOM is limited to the third-class dropouts. The percentage of third-class dropouts ranked in the lower half of their class when they dropped out is slightly over 50 percent.

MILITARY ACADEMY
MILITARY ORDER OF MERIT



ATHLETIC ABILITY

Three variables constitute our measure of athletic ability. The first variable was obtained from student responses to a question on the American Council on Education survey concerning whether the student earned a high school varsity letter. The other two variables, which were not available for the Coast Guard and Merchant Marine Academies, were furnished us by the Academies and reflect indexes developed by them; they are an athletic activity score and a physical aptitude exam (PAE) score. The athletic activity score is based upon participation in a high-school- or community-sponsored athletic program. Emphasis is placed on team contact sports, such as football, basketball, or hockey, as opposed to individual sports, like tennis or cross-country. Recognition is also given for significant sports accomplishments, such as being team captain, setting State records, and being selected for all-conference teams.

The physical aptitude exam consists of five events: pullups, standing broad jump, modified basketball throw, agility run, and the 300-yard shuttle run. Based on the student's performance, a score ranging from 200 to 800 is assigned.

Following is a summary of the student's score on these measures for each academy where it was available.

Air Force Academy

Earned varsity letters in high school

Approximately 75 percent of the students entering the class of 1974 earned varsity letters in high school. When responses are analyzed by time of dropout, no significant difference exists; that is, the Academy lost, by and large, the same percentage of varsity letter winners as it retained.

Athletic activity score

The following table shows the percentage of students in various ranges of the athletic activity index.

Air Force Academy
Athletic Activity Index

Score	Current Students	Dropouts: First Summer	Dropouts: Fourth-class Academic Year	Dropouts: Third-class Year
201 to 300	7%	9%	6%	7%
301 to 400	5	6	4	6
401 to 500	26	33	25	24
501 to 600	36	26	35	34
601 to 700	21	26	26	24
701 to 800	5	-	4	5

No significant difference exists between current students and dropouts. The current students tended to have the same rate of participation in high school and community athletic activities as the dropouts.

Physical aptitude exam

The following table shows the ranges for dropouts and current students on the PAE.

Air Force Academy
Physical Aptitude Exam

Score	Current students	Dropouts: First summer*	Dropouts: Fourth-class academic year	Dropouts: Third-class year***
301 to 400	4%	3%	5%	5%
401 to 500	27	47	34	22
501 to 600	43	44	31	40
601 to 700	24	6	24	31
701 to 800	2	-	6	2

* $p \leq .01$.
*** $.05 < p \leq .10$.

A highly significant relationship exists between first summer dropouts and current students, and there is a marginally significant difference between third-class dropouts and current students. No significant difference exists in the fourth-class academic year.

Military Academy

Earned varsity letters in high school

Approximately 80 percent of students entering the class of 1974 earned such letters. No significant difference exists between the current students and dropouts for any of the three time frames.

Athletic activity scores

The Academy considers the athletic activity score a measure of leadership potential and it has said of the high school athletic activity index and nonathletic activity score that "the greater the responsibility of the position, the more credit he [the candidate] receives." The Academy considers circumstances which would prevent one from participating in extracurricular or athletic activities. Data on the high school athletic activity score and nonathletic activity score was not adequate for analysis.

Physical aptitude exam

For the class of 1974 the PAE constituted 10 percent of a candidate's selection score. The Academy has stated that the PAE has proven to be an excellent measure of a cadet's ability to successfully complete the rigorous physical and military training programs at the Academy. The following table shows ranges of the physical aptitude exam for both dropouts and current students.

Military Academy
Physical Aptitude Exam

Score	Current students	Dropouts		
		First summer***	Fourth-class academic year***	Third-class year
301 to 400	2%	4%	2%	6%
401 to 500	22	29	33	19
501 to 600	47	40	37	45
601 to 700	24	21	25	24
701 to 800	5	6	3	6

***$.05 < p \leq .10$

A marginally significant difference in the PAE score was found between dropouts and current students in the first summer and fourth-class academic year; the current student was more likely to score higher than the dropout. No significant difference exists between third-class year dropouts and current students. The minimum qualifying score for the PAE was normally 450.

Naval Academy

Earned varsity letters in high school

Approximately 80 percent of entering students earned varsity letters in high school. A highly significant difference exists between fourth-class academic year dropouts and current students. Sixty-five percent of the fourth-class dropouts earned varsity letters compared to 80 percent of the current students. No significant difference existed in the third-class year.

Athletic activity score

The Naval Academy's athletic activity scores range from 0 to 1000. Most students scored between 0 and 300 points, which appears rather low. Once again, sample size problems made inappropriate a comparison between first summer dropouts and current students. The following table shows the percentage of students falling in various ranges of the athletic activity index.

Naval Academy
Athletic Activity Score

Score	Current students	Dropouts: Fourth-class academic year	Dropouts: Third-class year**
0 to 100	13%	16%	7%
101 to 200	20	15	21
201 to 300	17	28	20
301 to 400	17	11	12
401 to 500	12	9	14
501 to 600	9	10	10
601 to 700	6	9	8
701 to 800	2	0	3
801 to 900	2	2	4
901 to 1000	2	0	1

** $.01 < p \leq .05$.

A significant difference between dropouts and current students exists during the third-class year; the dropout had the higher athletic activity score.

Physical aptitude exam

Data was unavailable to adequately analyze the PAE scores.

Coast Guard Academy

Earned varsity letters while in high school

Approximately two-thirds of the current students earned such letters; however, no statistically significant differences exist between dropouts and current students during any of the three time frames.

Merchant Marine Academy

Earned varsity letters in high school

The following table, obtained from the Merchant Marine Academy, is the only information we have concerning high school varsity athletics.

Merchant Marine Academy
Percent of Students in the Class of 1974
That Participated in Varsity Athletics a/

Football	45%
Basketball	23
Baseball	18
Wrestling	18
Swimming	8
Gymnastics	1
Track	36
Cross-country	7
Rifle/pistol	2
Soccer	8
Sailing	2
Bowling	2
Tennis	5
Golf	3
Lacrosse	2

a/Some students participated more than one activity.

NONATHLETIC ACTIVITIES

The three military Academies have developed a measure known as the nonathletic activity score (NAAS) to measure participation in high school nonathletic activities. The NAAS ranges from 200 to 800 at the Military and Air Force Academies and from 0 to 1,000 at the Naval Academy. Points are assigned to a candidate during the admissions qualifying process based upon participation in community and high school nonathletic activities. Extra points are given to those who have held major offices in a club or an organization. No minimum qualifying score has been set.

Air Force Academy

The following table shows the percentage of dropouts and current students scoring in various categories of the NAAS.

Air Force Academy
Nonathletic Activity Score

Score	Current students	Dropouts: First summer	Dropouts: Fourth-class academic year	Dropouts: Third-class year**
100 to 300	1%	3%	2%	2%
301 to 400	9	12	9	8
401 to 500	24	26	33	34
501 to 600	40	29	33	34
601 to 700	20	18	15	17
701 to 800	6	12	8	5

**$.01 < p \leq .05$.

No significant difference exists between dropouts and current students in the first summer and fourth-class academic year; however, during the third-class year the current students score significantly higher on the nonathletic activity score than the dropouts.

The American Council on Education Student Information Form (SIF) also contained several questions dealing with student nonathletic activities. The following list summarizes the responses of dropouts and current students to some of those questions.

Air Force Academy
Percent of Students Participating in Nonathletic Activities

	Current students	Dropouts: First summer	Dropouts: Fourth-class academic year	Dropouts: Third-class year
Was elected president of one or more student organizations	38%	35%	35%	43%
Had a major part in a play	20	21	21	17
Edited or worked on a school paper, a yearbook, or another publication	9	9	11	7
Participated in a State or regional speech or debate contest	8	9	10	7

Dropouts and current students do not differ significantly in nonathletic activity participation.

Military Academy

The Academy did not provide data on the nonathletic activity score.

The following SIF questionnaire items deal with participation in nonathletic activities.

Military Academy
Percent of Students Participating
in Nonathletic Activities

	Current students	Dropouts: First summer	Dropouts: Fourth-class academic year	Dropouts: Third-class year
Was elected president of one or more student organizations	41%	44%	40%	33%***
Had a major part in a play	16	19	19	19
Edited or worked on a school paper, a yearbook, or another publication	11	10	12	10
Participated in a State or regional speech or debate contest	7	6	8	9

*** $.05 < p \leq .10$.

Except for a marginally significant difference between third-class year dropouts and current students on one item, no significant difference was found during any of the dropout time frames for the above variables.

Naval Academy

The following table shows the NAAS for current students and two dropout time frames.

Naval Academy
Nonathletic Activity Score

Score	Current students	Dropouts	
		Fourth-class academic year***	Third-class year
1 to 100	7%	6%	9%
101 to 200	16	23	18
201 to 300	23	17	24
301 to 400	21	28	18
401 to 500	14	16	13
501 to 600	11	2	8
601 to 700	5	4	5
701 to 1,000	3	4	5

*** $.05 < p \leq .10$.

Unlike the Air Force Academy, most Naval Academy nonathletic activity scores fall between 0 and 400; however, due to differences in assigning weights and points for various activities, the Academies should not be compared. A comparision of dropouts and current students showed a marginally signicant difference during the fourth-class academic year; the current students had slightly higher athletic activity scores.

The table below shows the student responses to the American Council on Education SIF questionnaire items.

Naval Academy
Percentage of Students Participating in Nonathletic Activities

		Dropouts	
	Current students	Fourth-class academic year	Third-class year
Was elected president of one or more student organizations	41%	39%	38%
Had a major part in a play	20	24	19
Edited or worked on a school paper, a yearbook, or another publication	12	16	14
Participated in a State or regional speech or debate contest	8	6	6

Current students and dropouts do not differ significantly on these items.

Coast Guard Academy

The Academy does not construct an NAAS; however, the following SIF questionnaire items do show larger differences than at the other academies.

Coast Guard Academy
Percent of Students Participating
in Nonathletic Activities

	Current students	Dropouts: First summer	Dropouts: Fourth-class academic year	Dropouts: Third-class year
Was elected president of one or more student organizations	35%	40%	42%	27%
Had a major part in a play	18	10	11	33**
Edited or worked on a school paper, a yearbook, or another publication	4	-	8	19**
Participated in a State or regional speech or debate contest	4	10	6	4

**.01<p≤.05.

A significant difference between current students and third-class dropouts exists in terms of editing a school publication and participating in a theatrical production. The Coast Guard Academy lost a larger percentage of students who indicated they had participated in these activities in high school.

Merchant Marine Academy

The following information on student participation in high school activities was obtained from an Academy publication.

Merchant Marine Academy
Percent of Students Participating
in Nonathletic Activities

	Entering students of the class of 1974 (percent)
Class officer:	
President or vice-president	12
Other	21
School club:	
Member of one or more clubs	79
Officer of one or more clubs	7
School publication staff:	
School paper editor	2
School paper staff	2
Yearbook editor	1
Yearbook staff	3

The Academy does not construct an NAAS. Data from Academy records was insufficient to determine a relationship between dropouts and current students.

GENERAL ATTITUDES

We obtained data from the American Council on Education concerning academy students' general attitudes toward a number of issues. The council collected this information from the students when they entered the academy.

Attitudes of students at each academy are discussed separately for the following areas; differences between current students and the dropouts during the three time frames are emphasized.

--Overall politics.

--Federal Government involvement.

--College officials and policies.

--Sociobenevolent issues.

--Contemporary social issues.

--Personal habits.

The following table describes the significance indicators used for the tables for this section.

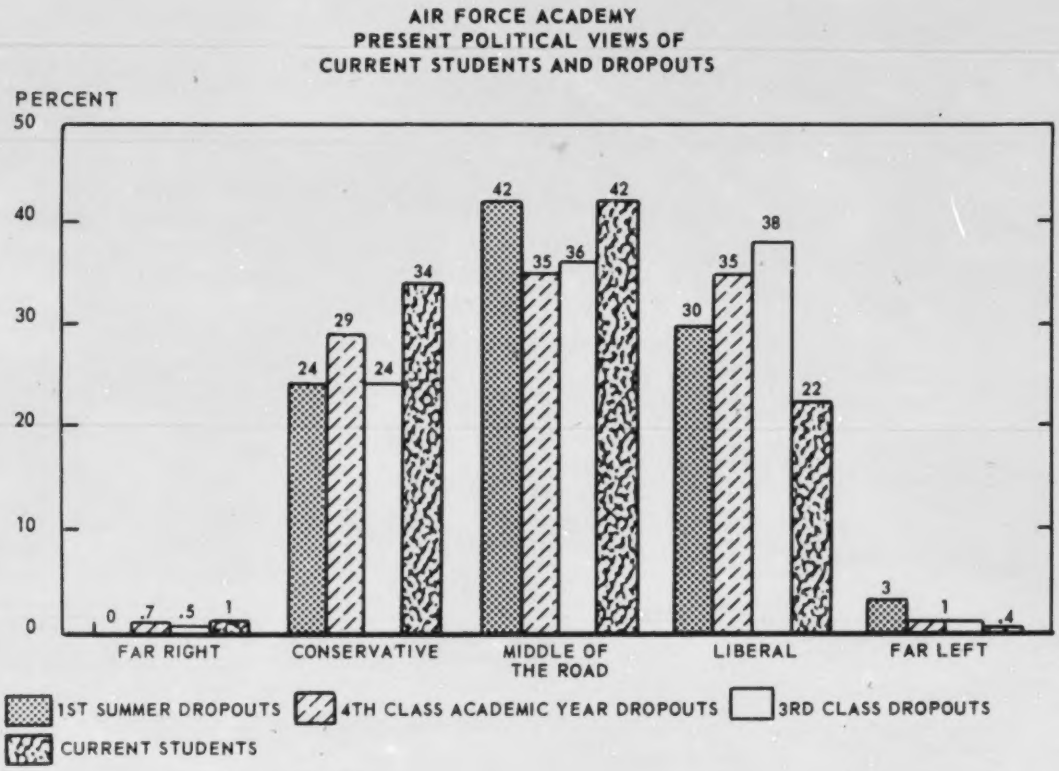
Significance indicator	Statistical significance	Meaning
N	No statistical difference was detected between dropouts and current students ($p>.10$).	The attitudes of the dropouts and current students did not differ concerning the statement.
DM	A marginally significant difference exists between dropouts and current students ($.05<p\leq.10$).	The dropouts had a more positive or concurring attitude to the statement.
DS	A significant difference exists between dropouts and current students ($.01<p \leq .05$).	do.
DH	A highly significant difference exists between dropouts and current students ($p\leq.01$).	do.
CM	A marginally significant difference exists between dropouts and current students ($.05< p \leq .10$).	The current students had a more positive or concurring attitude to the statement.
CS	A significant difference exists between dropouts and current students ($.01<p\leq.05$).	do.
CH	A highly significant difference exists between dropouts and current students ($p\leq.01$).	do.

Air Force Academy

Overall political attitudes

The following chart shows the responses of current students and dropouts concerning their overall political views. A highly significant difference exists between current students and dropouts for the fourth-class academic and

third-class years; the current students tended to characterize themselves as middle of the road or conservative, while the dropouts were more liberal.



Attitudes toward Federal Government programs

The following table shows the responses of current students and dropouts on questions regarding Federal Government participation in a number of areas.

Air Force Academy
Attitudes Toward Federal Government Programs

Variable	First summer	Fourth-class academic year	Third-class year
The Federal Government should initiate a program to:			
Control environmental pollution	CM	N	CH
Use tax incentives to control the birth rate	N	N	CH
Protect the consumer from faulty goods and services	N	DH	N
Provide compensatory education for the disadvantaged	N	N	N
Provide special benefits for veterans	CH	N	CH
Control firearms	N	N	N
Eliminate poverty	CM	N	N
Prevent crime	CM	N	N
Promote school desegregation	N	N	N
Provide compensatory financial aid to disadvantaged	N	N	N
Provide birth control pills, information, and devices to public	N	DS	N
Increase military involvement in Southeast Asia	CS	N	N
Develop antiballistic missile capability	N	CS	CM
Control news reporting	N	CH	CM
Increase space program participation	CM	N	CS

For the majority of questions there was no consistent difference between current students and dropouts. The principal differences pertain to a greater belief on the part of the current students that the Government should initiate programs to control news reporting, increase space program participation, provide special benefits for veterans, control environmental pollution, and develop anti-ballistic missile capability.

Attitudes about college officials and policies

The following table shows the attitudes of dropouts and current students toward college officials and policies.

Air Force Academy
Attitudes About College Officials and Policies

Variable	First summer	Fourth-class academic year	Third-class year
Students should have a major role in specifying curriculum	N	DS	DS
College officials have right to regulate student behavior off campus	CM	CH	CS
Chief benefit of a college education is increased earning power	N	N	CM
Faculty promotions should be based in part on student evaluations	DS	N	N
College grades should be abolished	N	DH	DH
Student publications should be cleared by college officials	N	CH	CS
College officials have a right to ban extremists from speaking on campus	N	CS	CS
Students from disadvantaged social backgrounds should be given preferential treatment	DS	N	DS
Most college officials have been lax in dealing with student protestors on campus	CM	CS	CH

The dropouts and current students differ markedly on several issues. The dropouts, to a greater degree, believe that students should have a role in specifying the curriculum, grades should be abolished, and special treatment should be given to the disadvantaged. The current students, on the other hand, tend to want more regulation of student behavior off campus, clearing of publications by college officials, and banning of extremists from speaking on campus. The current students also believe, to a greater degree, that college officials have been too lax in dealing with student protestors. Also, the significance of this attitude increases with time.

Sociobenevolent attitudes

The following table presents the sociobenevolent attitudes of dropouts and current students, i.e., the student's perception of his role and purpose in society.

Air Force Academy
Sociobenevolent Attitudes

Variable	First summer	Fourth-class academic year	Third-class year
The student felt it was important to:			
Influence the political structure	DS	N	DM
Influence social values	DM	DH	DH
Raise a family	DM	N	N
Have an active social life	N	DM	DS
Have administrative responsibility for the work of others	N	CM	N
Be very well off financially	N	DH	N
Help those in difficulty	DH	DM	DH
Participate in an organization like the Peace Corps	N	N	N
Become a community leader	N	N	N
Keep up to date with political affairs	N	N	N
Be successful in own business	N	N	N
Develop a meaningful philosophy of life	N	N	DS
Participate in a community action program	N	N	DS
Get married within the next 5 years	N	DH	N

Significant differences exist in several instances. The dropout appears more socially and politically concerned than the current student. Marriage and financial matters also

seem to affect the fourth-class academic year dropout more than the other dropouts or the current students.

Attitude toward controversial social issues

The table below shows the attitudes of current students and dropouts toward such issues.

Air Force Academy
Contemporary Social Issues

Variable	First summer	Fourth-class academic year	Third-class year
Marijuana should be legalized	DH	DH	DH
Only volunteers should serve in the Armed Forces	DS	DH	N
Divorce laws should be liberalized	DS	DH	DN
Under some conditions, abortions should be legalized	N	DH	N
Courts are too concerned about the rights of criminals	N	N	CM
The death penalty should be abolished	N	N	N
Activities of married women are best confined to home and family	DS	CS	N
Women should be subject to the draft	N	DM	N
Women should receive the same salary and opportunities as men in comparable positions	CS	N	DS
Everybody should be given an opportunity to go to college	DS	N	DS

On issues which may be related to religious background and beliefs, the dropouts and current students differ significantly. The dropouts appear more liberal than the current students concerning marijuana legalization, divorce,

and all-volunteer Armed Forces. However, both groups exhibit mixed feelings concerning the rights and responsibilities of women. Dropouts, to a greater degree, also feel everyone should be given an opportunity to go to college.

Personal habits

Our last measure deals with some personal habits of the students while in high school, as follows:

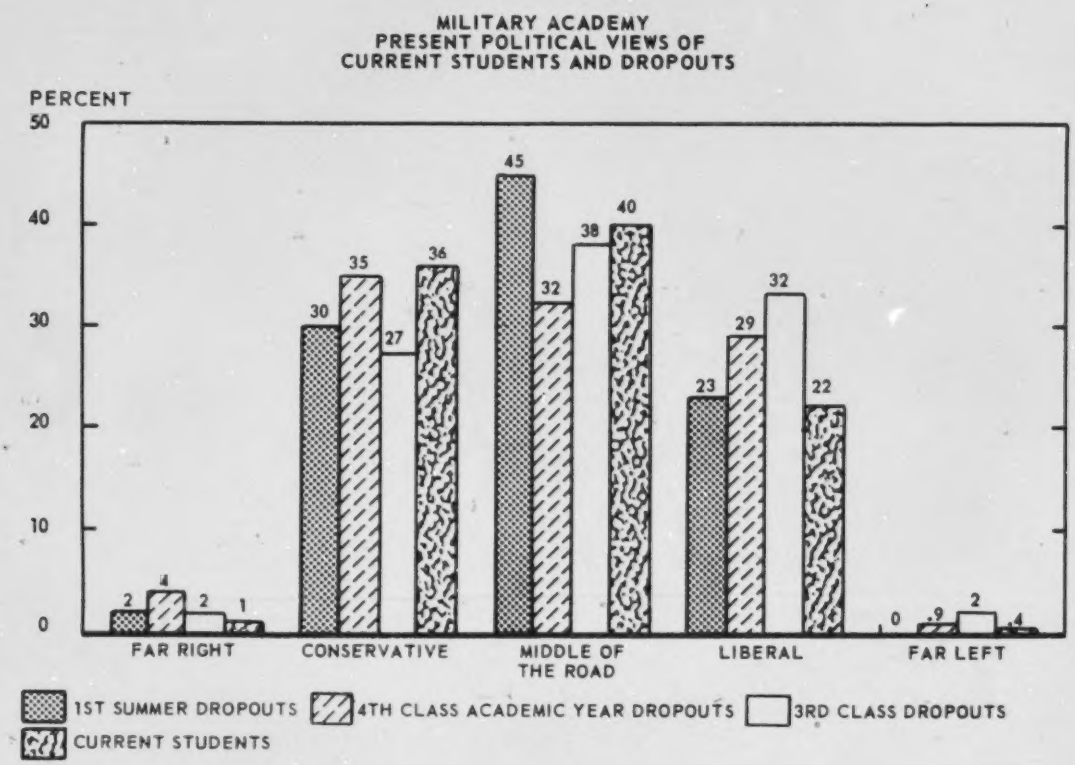
Air Force Academy
Personal Habits

Variable	First summer	Fourth-class academic year	Third-class year
Failed to complete homework on time	N	DH	N
Argued with teacher in class	DM	N	N
Took sleeping pills	N	DM	N
Took vitamins	N	N	N
Smoked cigarettes	DM	DH	DH
Stayed up all night	DS	DH	N
Cried	DM	N	N
Cursed or swore	N	DH	N

Military Academy

Overall political attitude

The following chart shows the responses of the dropouts and current students when asked to characterize their political views.



The first summer dropouts do not differ significantly from the current students. The fourth-class academic year dropouts show a marginally significant difference from the current students, and the third-class dropouts differ significantly. Except for the first summer, the dropouts express a more liberal attitude than the current students.

Attitudes toward Federal Government Programs

Statistical differences were detected in a few instances in attitudes toward the Federal Government and its policies and programs, as follows:

Military Academy
Attitudes Toward Federal Government Programs

Variable	First summer	Fourth-class academic year	Third-class year
The Federal Government should initiate a program to:			
Control environmental pollution	CH	N	N
Use tax incentives to control the birth rate	CS	N	N
Protect the consumer from faulty goods and services	N	DM	N
Provide compensatory education for the disadvantaged	N	N	N
Provide special benefits for veterans	CM	N	N
Control firearms	N	CM	N
Eliminate poverty	CH	CM	N
Prevent crime	N	N	N
Promote school desegregation	CM	N	N
Provide compensatory financial aid to disadvantaged	CM	N	N
Provide birth control pills, information, and devices to public	N	N	N
Increase military involvement in Southeast Asia	N	N	CS

Variable	First summer	Fourth-class academic year	Third-class year
Develop antiballistic missile capability	N	N	CM
Control news reporting	CS	CH	N
Increase space program participation	N	DS	N

Differences between dropouts and current students were evident in Federal Government policies which affect the Armed Forces--benefits for veterans, increased military involvement in Southeast Asia, and antiballistic missile capability.

Attitudes about college officials and policies

The table that follows shows the attitudes of current students and dropouts towards college (academy) officials and policies.

Military Academy
Attitudes About College Officials and Policies

Variable	First summer	Fourth-class academic year	Third-class year
Students should have a major role in specifying curriculum	N	DM	DM
College officials have right to regulate student behavior off campus	N	N	N
Chief benefit of a college education is increased earning power	N	N	N
Faculty promotions should be based in part on student evaluations	CS	N	DM
College grades should be abolished	N	N	DS
Student publications should be cleared by college officials	N	CS	CM
College officials have a right to ban extremists from speaking on campus	N	CH	N
Students from disadvantaged social backgrounds should be given preferential treatment	N	CM	N
Most college officials have been lax in dealing with student protestors on campus	N	CH	CH

On most issues, current students and dropouts had similar views. On those issues where a statistical difference was found, the dropouts tended to be more liberal. The highly significant relationship about their feeling that most college officials have been lax in dealing with student protestors is consistent with the data for the Air Force Academy.

Only one difference was found between current students and dropouts during the first summer, which indicates that those students who left the Academy during this period had basically the same attitudes on these measures as those who remained.

Sociobenevolent attitudes

The sociobenevolent attitudes of current students and dropouts are as follows:

Military Academy
Sociobenevolent Attitudes

Variable	First summer	Fourth-class academic year	Third-class year
The student felt it was important to:			
Influence the political structure	N	N	CM
Influence social values	DM	N	N
Raise a family	N	N	DS
Have an active social life	N	DS	DH
Have administrative responsibility for the work of others	CS	CS	CH
Be very well off financially	N	N	N
Help those in difficulty	N	CS	N
Participate in an organization like the Peace Corps	DM	N	N
Become a community leader	N	N	CS
Keep up to date with political affairs	CM	N	CM
Be successful in own business	N	N	N
Develop a meaningful philosophy of life	N	N	N
Participate in a community action program	N	N	N
Get married within the next 5 years	N	DH	DH

The dropouts tend to feel stronger than the current students toward an active social life and marriage, while the current students tend to feel stronger about keeping up to date with political affairs and having administrative responsibility for the work of others.

Attitudes toward controversial social issues

The next chart deals with the attitudes of current students and dropouts on these issues.

Military Academy
Contemporary Social Issues

Variable	First summer	Fourth-class academic year	Third-class year
Marijuana should be legalized	N	DH	DS
Only volunteers should serve in the Armed Forces	N	N	N
Divorce laws should be liberalized	N	DM	N
Under some conditions, abortions should be legalized	N	DM	DM
Courts are too concerned about the rights of criminals	CS	CM	N
The death penalty should be abolished	N	N	N
Activities of married women are best confined to home and family	CS	N	N
Women should be subject to the draft	N	N	CM
Women should receive the same salary and opportunities as men in comparable positions	N	N	N
Everybody should be given an opportunity to go to college	N	DM	N

The dropouts concur more with marijuana and abortion legalization than the current students, who exhibit stronger feelings that the courts are too concerned about the rights of criminals.

Personal habits

The following table, which presents activities of the students in high school, indicates the major differences between dropouts and current students.

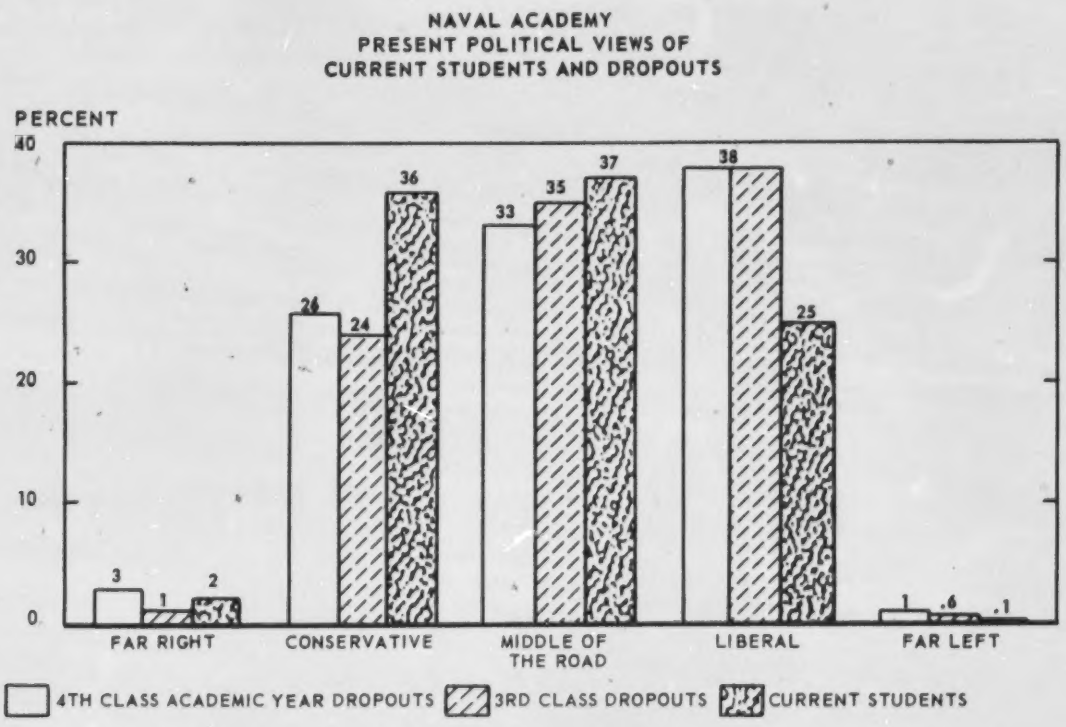
Military Academy
Personal Habits

Variable	First summer	Fourth-class academic year	Third-class year
Failed to complete homework on time	N	DH	N
Argued with teacher in class	N	DM	DM
Took sleeping pills	N	DH	DM
Took vitamins	CM	N	N
Smoked cigarettes	N	DH	DH
Stayed up all night	N	N	DH
Cried	DM	N	N
Cursed or swore	N	DH	N

Naval Academy

Overall political attitudes

The following chart shows how the entering students of the class of 1974 classified their political views.



The dropouts show a significant difference from the current students during the fourth-class academic year and a highly significant difference during the third-class year. In both instances, the dropouts are more liberal.

Attitudes toward Federal Government programs

The current students and dropouts possess different views on some issues, as follows:

Naval Academy
Attitudes Toward Federal Government Programs

Variable	Fourth-class academic year	Third-class year
The Federal Government should initiate a program to:		
Control environmental pollution	N	N
Use tax incentives to control the birth rate	N	N
Protect the consumer from faulty goods and services	DS	DM
Provide compensatory education for the disadvantaged	N	N
Provide special benefits for veterans	N	N
Control firearms	CS	CS
Eliminate poverty	N	N
Prevent crime	N	N
Promote school desegregation	N	DS
Provide compensatory financial aid to disadvantaged	N	N
Provide birth control pills, information, and devices to public	N	DH
Increase military involvement in Southeast Asia	CH	N

Variable	Fourth-class academic year	Third-class year
Develop antiballistic missile capability	CS	CS
Control news reporting	N	N
Increase space program participation	N	N

Attitudes about college officials and policies

A difference similar to that found at the Air Force and Military Academies exists between dropouts and current students.

Naval Academy
Attitudes About College Officials and Policies

Variable	Fourth-class academic year	Third-class year
Students should have a major role in specifying curriculum	N	DM
College officials have right to regulate student behavior off campus	N	CH
Chief benefit of a college education is increased earning power	CM	N
Faculty promotions should be based in part on student evaluations	N	N
College grades should be abolished	DS	N
Student publications should be cleared by college officials	N	CH
College officials have a right to ban extremists from speaking on campus	CH	CS
Students from disadvantaged social backgrounds should be given preferential treatment	N	DM
Most college officials have been lax in dealing with student protestors on campus	CH	CH

The current students appear more in agreement with present conditions or favor increased restrictions on publications, protests, and extremist views.

Sociobenevolent attitudes

The following table deals with sociobenevolent attitudes of current students and dropouts.

Naval Academy
Sociobenevolent Attitudes

Variable	Fourth-class academic year	Third-class year
The student felt it was important to:		
Influence the political structure	N	N
Influence social values	DH	N
Raise a family	N	N
Have an active social life	N	N
Have administrative responsibility for the work of others	CH	N
Be very well off financially	CM	N
Help those in difficulty	N	N
Participate in an organization like the Peace Corps	N	DS
Become a community leader	N	N
Keep up to date with political affairs	N	N
Be successful in own business	N	N
Develop a meaningful philosophy of life	DS	DS
Participate in a community action program	N	N
Get married within the next 5 years	DH	N

The dropouts appear to possess stronger sociobenevolent attitudes than the current students, as evidenced from their response to items such as participating in an organization like the Peace Corps and developing a meaningful philosophy of life. The current students, on the other hand, indicate a stronger desire to be financially well off and to have administrative responsibilities for the work of others. The fourth-class academic year dropouts also indicate a stronger desire to marry within the next 5 years.

Attitudes toward controversial social issues

The following table, presents the views of dropouts and current students toward contemporary social issues.

Naval Academy
Contemporary Social Issues

Variable	Fourth-class academic year	Third-class year
Marijuana should be legalized	DH	DH
Only volunteers should serve in the Armed Forces	DH	DH
Divorce laws should be liberalized	N	DH
Under some conditions, abortions should be legalized	N	DS
Courts are too concerned about the rights of criminals	CM	CS
The death penalty should be abolished	N	DH
Activities of married women are best confined to home and family	CS	N
Women should be subject to the draft	N	CM
Women should receive the same salary and opportunities as men in comparable positions	N	N
Everybody should be given an opportunity to go to college	DS	DH

The dropouts are more in agreement with marijuana legalization, a volunteer armed force, and an opportunity for everyone to attend college. The current students tend, to a larger degree, to believe that the courts are too concerned about the rights of criminals.

Personal habits

The following table presents habits which the students may have had in high school.

Naval Academy
Personal Habits

Variable	Fourth-class academic year	Third-class year
Failed to complete homework on time	N	DS
Argued with teacher in class	DM	N
Took sleeping pills	CM	N
Took vitamins	N	N
Smoked cigarettes	DH	DH
Stayed up all night	N	DH
Cried	DH	DH
Cursed or swore	CM	DM

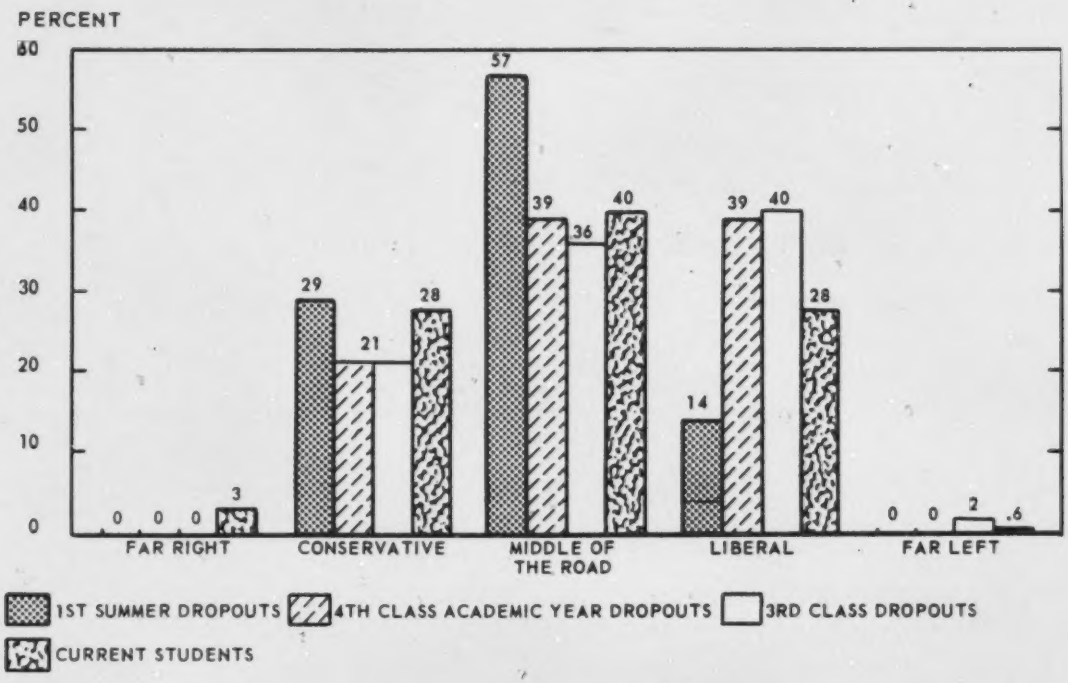
Coast Guard Academy

Overall political attitudes

The student-reported political views, at time of entry, follow on next page.

The differences between current students and dropouts were not statistically significant during any dropout time frame. The first summer dropouts, more than any other group, were middle of the road on political issues.

COAST GUARD ACADEMY
PRESENT POLITICAL VIEWS OF
CURRENT STUDENTS AND DROPOUTS



Attitudes toward Federal Government programs

The lack of significant difference in the student-reported political views is also evident for most items in the following table.

Coast Guard Academy
Attitudes Toward Federal Government Programs

Variable	First summer	Fourth-class academic year	Third-class year
The Federal Government should initiate a program to:			
Control environmental pollution	CH	N	N
Use tax incentives to control the birth rate	N	N	N
Protect the consumer from faulty goods and services	N	N	N
Provide compensatory education for the disadvantaged	N	N	N
Provide special benefits for veterans	DS	CS	N
Control firearms	N	N	N
Eliminate poverty	N	N	N
Prevent crime	CM	CH	CS
Promote school desegregation	DM	N	N
Provide compensatory financial aid to disadvantaged	DM	N	N
Provide birth control pills, information, and devices to public	N	N	N
Increase military involvement in Southeast Asia	CM	N	N
Develop antiballistic missile capability	CH	N	N
Control news reporting	N	N	N
Increase space program participation	N	CM	N

Except for the issue of crime prevention capability, dropouts and current students possess similar attitudes towards Government programs and policies.

Attitudes about college officials and policies

The attitudes of current students and dropouts toward college (academy) officials and policies follow.

Coast Guard Academy
Attitudes About College Officials and Policies

Variable	First summer	Fourth-class academic year	Third-class year
Students should have a major role in specifying curriculum	N	DM	DS
College officials have right to regulate student behavior off campus	DS	N	DS
Chief benefit of a college education is increased earning power	DM	N	CM
Faculty promotions should be based in part on student evaluations	N	N	N
College grades should be abolished	N	DH	DH
Student publications should be cleared by college officials	N	N	CM
College officials have a right to ban extremists from speaking on campus	DS	N	CM
Students from disadvantaged social backgrounds should be given preferential treatment	DM	N	N
Most college officials have been lax in dealing with student protestors on campus	N	N	N

Sociobenevolent attitudes

The following table presents the students' attitudes toward sociobenevolent issues.

Coast Guard Academy
Sociobenevolent Attitudes

Variable	First summer	Fourth-class academic year	Third-class year
The student felt it was important to:			
Influence the political structure	N	N	N
Influence social values	N	N	DS
Raise a family	N	DM	DS
Have an active social life	CM	N	DM
Have administrative responsibility for the work of others	N	CS	N
Be very well off financially	CS	N	N
Help those in difficulty	N	CM	N
Participate in an organization like the Peace Corps	N	N	N
Become a community leader	N	N	N
Keep up to date with political affairs	N	N	N
Be successful in own business	N	N	N
Develop a meaningful philosophy of life	N	CM	N
Participate in a community action program	N	CS	DM
Get married within the next 5 years	N	N	N

The only consistent relationship for more than one time frame concerns raising a family, where the dropouts feel more strongly. During the fourth-class academic year, current students seem to put more weight on sociobenevolent actions than the dropouts.

Contemporary social issues

Attitudes on these issues follow.

Coast Guard Academy
Contemporary Social Issues

Variable	First summer	Fourth-class academic year	Third-class year
Marijuana should be legalized	N	DH	DS
Only volunteers should serve in the Armed Forces	N	DM	N
Divorce laws should be liberalized	N	DH	DH
Under some conditions, abortions should be legalized	N	DS	DS
Courts are too concerned about the rights of criminals	N	N	N
The death penalty should be abolished	N	N	DH
Activities of married women are best confined to home and family	N	N	N
Women should be subject to the draft	DS	N	N
Women should receive the same salary and opportunities as men in comparable positions	N	CS	N
Everybody should be given an opportunity to go to college	N	N	N

The first summer dropouts appear to have attitudes similar to those of the current students. During the fourth-class academic and third-class years, the dropouts are more liberal toward marijuana and abortion legalization, liberalization of divorce laws, and the abolishment of the death penalty.

Personal habits

Some high school personal habit indicators, as reported by the student, appear in the next table.

Coast Guard Academy
Personal Habits

Variable	First summer	Fourth-class academic year	Third-class year
Failed to complete homework on time	N	DH	N
Argued with teacher in class	N	N	DM
Took sleeping pills	DS	N	N
Took vitamins	N	N	N
Smoked cigarettes	DM	DH	DH
Stayed up all night	DS	N	N
Cried	N	N	N
Cursed or swore	N	DS	DH

The dropouts smoked and cursed more than the current students. The fourth-class academic year dropouts had a higher incidence of homework incompletion in high school compared to the current students.

OTHER ATTRIBUTES

This section will present student-reported information on parental income, parents' educational level, and father's occupation. It will also discuss student-reported data on the socioeconomic status of the parents' neighborhood, the secondary schools attended by the student, and the family's status and religion.

Parental income

More than 75 percent of the students' parents at all academies earned $10,000 or more in 1970; most earned between $10,000 and $20,000. The majority of academy students are from middle or upper middle income homes. The income distribution is nearly identical for dropouts and current students.

Parents' formal education

Approximately 88 percent of the students' fathers had at least high school diplomas, and about 62 percent had some college. Ninety percent of the mothers had at least high school diplomas, and about 48 percent had some college. No significant educational difference was found between parents of dropouts and parents of current students.

Neighborhood socioeconomic status

The following table shows the types of neighborhoods the students grew up in as reported by the student. No statistically significant difference exists between current students and dropouts.

Types Of Neighborhoods Students Grew Up In

	Class				
Academy and status	Lower	Lower middle	Middle	Upper middle	Upper
Air Force Academy:					
Current students	0%	8%	50%	40%	2%
Dropouts	1	8	49	40	2
Military Academy:					
Current students	0	11	50	37	2
Dropouts	0	13	46	38	3
Naval Academy:					
Current students	1	7	50	39	3
Dropouts	0	8	43	45	4
Coast Guard Academy:					
Current students	1	10	56	31	2
Dropouts	1	7	50	42	-

Father's occupations

The charts on page 72 show the percentage of fathers employed in selected categories at the time the students entered the academy.

The "other" category consists of responses to 34 additional occupations which would constitute the following categories. None of these categories exceeded 5 percent.

Artist
Clergyman
Educator
Member of health profession
Lawyer
Researcher
Undecided
Unemployed
Unclassified

Parents' status

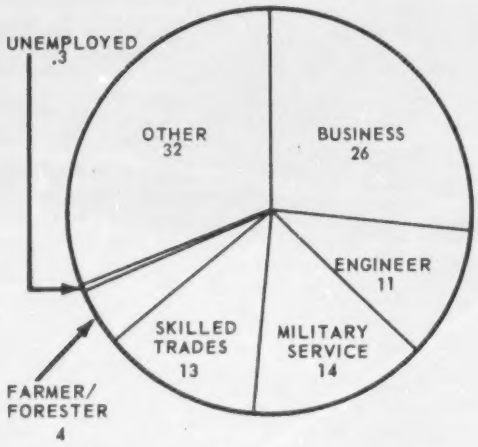
The following table shows the family status as reported by the student when he entered the academy.

	Parents deceased	Parents alive and separated	Parents alive and living together
Air Force Academy:			
Current students	4%	6%	90%
Dropouts	4	6	90
Military Academy:			
Current students	5	5	90
Dropouts	4	6	90
Naval Academy:			
Current students	5	7	88
Dropouts	5	4	91
Coast Guard Academy:			
Current students	1	4	95
Dropouts	4	10	86

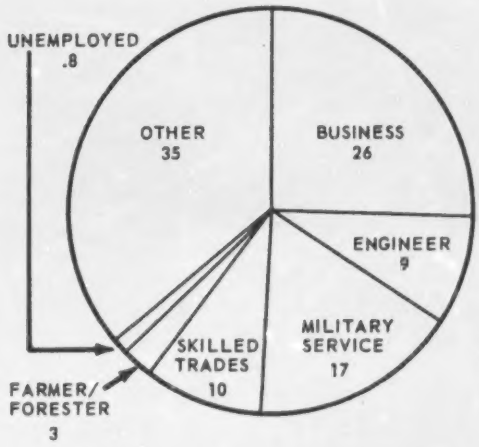
About 90 percent of the students had parents that were alive and living together. Only at the Coast Guard Academy did dropouts and current students differ slightly; 14 percent of the dropouts came from homes where at least one parent was

FATHER'S OCCUPATION

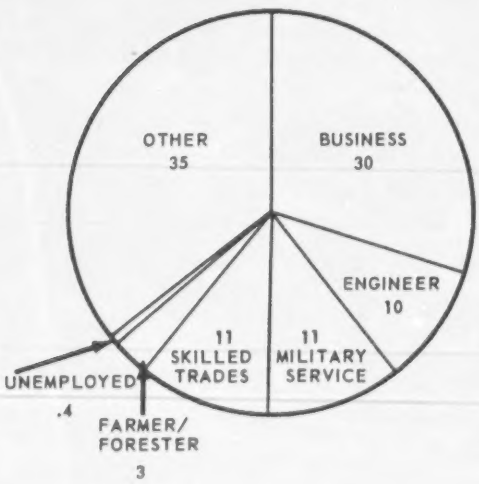
AIR FORCE ACADEMY



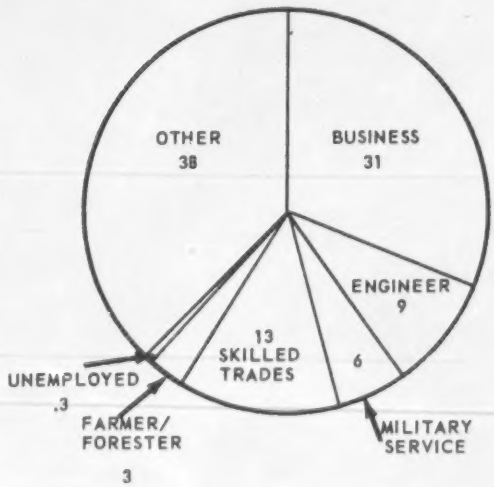
MILITARY ACADEMY



NAVAL ACADEMY



COAST GUARD ACADEMY



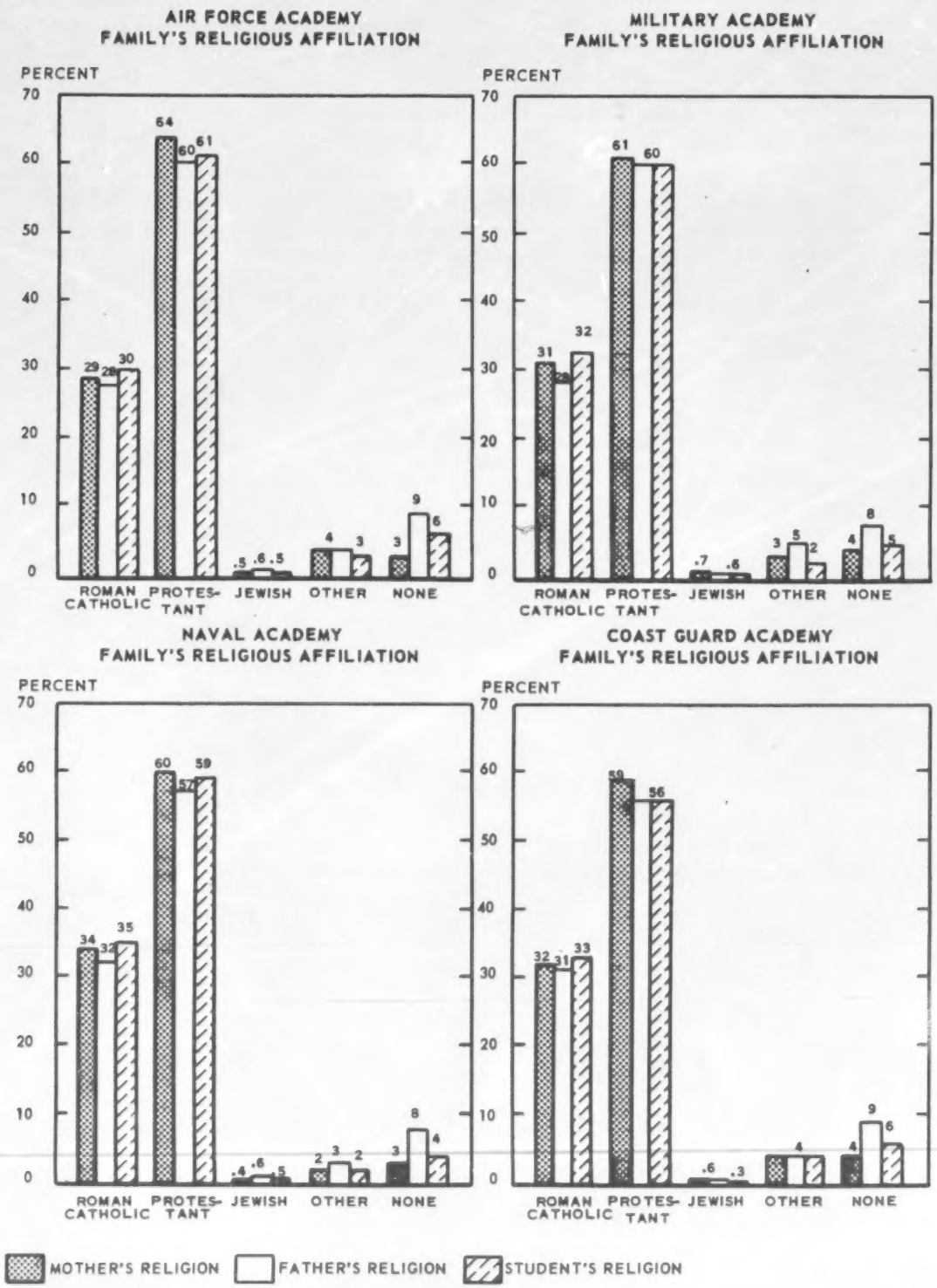
deceased or the parents were separated, while only 5 percent of the current students had the same situation. This difference was not statistically significant.

Percentage of student's high school class who attended college

Approximately 75 percent of academy students indicated that at least half of their graduating class went to college. Almost 35 percent indicated that three-fourths of their graduating class went on to college. The students also rated their high schools as middle class or higher. No significant difference was found between current students and dropouts.

Family religion

Most parents were categorized by the students as Protestant and about one-third as Roman Catholic. The following charts show the student responses to affiliation with selected religions.


AIR FORCE ACADEMY
FAMILY'S RELIGIOUS AFFILIATION
PERCENT
70
60
50
40
30
20
10
0
29 28 30
64 60 61
.5 .6 .5
4 3
3 9 6
ROMAN CATHOLIC
PROTES-TANT
JEWISH
OTHER
NONE
MILITARY ACADEMY
FAMILY'S RELIGIOUS AFFILIATION
PERCENT
31 28 32
61 60
.7 .6
3 5 2
4 8 5
ROMAN CATHOLIC
PROTES-TANT
JEWISH
OTHER
NONE
NAVAL ACADEMY
FAMILY'S RELIGIOUS AFFILIATION
PERCENT
34 32 35
60 57 59
.4 .6 .5
2 3 2
3 8 4
ROMAN CATHOLIC
PROTES-TANT
JEWISH
OTHER
NONE
COAST GUARD ACADEMY
FAMILY'S RELIGIOUS AFFILIATION
PERCENT
32 31 33
59 56
.6 .3
4
4 9 6
ROMAN CATHOLIC
PROTES-TANT
JEWISH
OTHER
NONE
MOTHER'S RELIGION
FATHER'S RELIGION
STUDENT'S RELIGION

Frequency student attended religious services

At the Air Force and Naval Academies, the majority of students indicated they had frequently attended religious services in high school. At the Military and Coast Guard Academies, slightly less than 94 percent of the students responded that they had attended religious services either frequently or occassionally. Only at the Air Force Academy did approximately 10 percent of the students indicate they did not attend religious services at all in high school. At the three military Academies, the significant difference between dropouts and current students indicated that the current students attended religious services more than the dropouts.

CHAPTER 2

A DROPOUT PROFILE

Based on our analysis of the characteristics of the class of 1974, the following general description of the student who failed to graduate from the Federal service academies emerges:

--He scored considerably above the national average on standardized academic measures, as did the current student. However, he scored somewhat lower than the current student on standardized math tests and sometimes on standardized verbal or English tests.

--His high school achievements, although quite admirable, with about 85 percent of the students ranking in the top quarter of their high school graduating class, were significantly lower than those of the current student.

--In terms of the Military Order of Merit (available at the Air Force and Military Academies only) the dropout tended to rank considerably below the current student.

--He was athletically inclined; however, compared to the current student, he tended to score lower on high school athletic activity tests and the physical aptitude exam.

--He did not differ significantly from the current student in terms of nonathletic activity participation. Both had some participation in high school and community organizations.

--He tended to characterize his political attitudes as more liberal than those of the current student, and he took a more liberal stance on such controversial social issues as marijuana legislation, divorce, abortion, and the all-volunteer force.

--He (as well as the current student) was from a middle income home with parents who were fairly well educated. His parents were

employed in various occupations; a significant number worked as businessmen, engineers, skilled laborers, or career military. Most had Protestant backgrounds; about one-third were Roman Catholic.

The following table summarizes the results in chapter 1. (See page 41, for an explanation of the symbols used in the table.)

Dimension	Air Force Academy			Military Academy		
	First summer	Fourth-class academic year	Third-class year	First summer	Fourth-class academic year	Third-class year
Standardized academic measures:						
SAT math	N	CH	N	N	CS	CS
SAT verbal	N	N	CS	CS	N	CS
Math achievement	N	CH	N	N	CH	CS
English composition	N	N	CS	N	CS	N
High school acheivement:						
High school rank	N	CH	CH	N	N	CH
ETS high school rank	N	CH	CS	(b)	(b)	(b)
High school grades	N	CH	CH	N	CH	CM
Scholastic honor society	N	CS	CM	N	CH	CH
Military Order of Merit:	(b)	(c)	(c)	(b)	(b)	(c)
Athletic ability:						
Athletic activitiy score	N	N	N	(b)	(b)	(b)
Physical aptitude exam	CH	N	DM	CM	CM	N
Varsity letter	N	N	N	N	N	N
Nonathletic activities:						
Nonathletic activity score	N	N	CS	(b)	(b)	(b)
SIF nonathletic items	N	N	N	N	N	DM

Dimension	Naval Academy			Coast Guard Academy		
	First summer	Fourth-class academic year	Third-class year	First summer	Fourth-class academic year	Third-class year
Standardized academic measures:						
SAT math	(a)	CH	CH	N	N	N
Sat verbal	(a)	N	CM	N	N	N
Math achievement	(a)	CH	CH	N	N	CS
English composition	(a)	CH	CH	N	N	CM
High school achievement:						
High school rank	(a)	CM	CH	N	CM	CS
ETS high school rank	(a)	CH	CH	N	CH	CH
High school grades	(a)	CH	CS	N	CS	CS
Scholastic honor society	(a)	CH	CH	N	CH	CH
Military Order of Merit:	(b)	(b)	(b)	(b)	(b)	(b)
Athletic ability:						
Athletic activity score	(a)	N	CS	(b)	(b)	(b)
Physical aptitude exam	(a)	(b)	(b)	(b)	(b)	(b)
Varsity letter	(a)	CH	N	N	N	N
Nonathletic activities:						
Nonathletic activity score	(a)	CM	N	(b)	(b)	(b)
SIF nonathletic items	(a)	N	N	N	N	CS

[a] A small sample size prevented statistical analysis of this measure.

[b] Adequate data was unavailable or does not exist for this measure.

[c] Current students had higher orders of merit.

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